

body, but the figure is more artistic and less natural than that of Mr. Hessel Gerrard A.

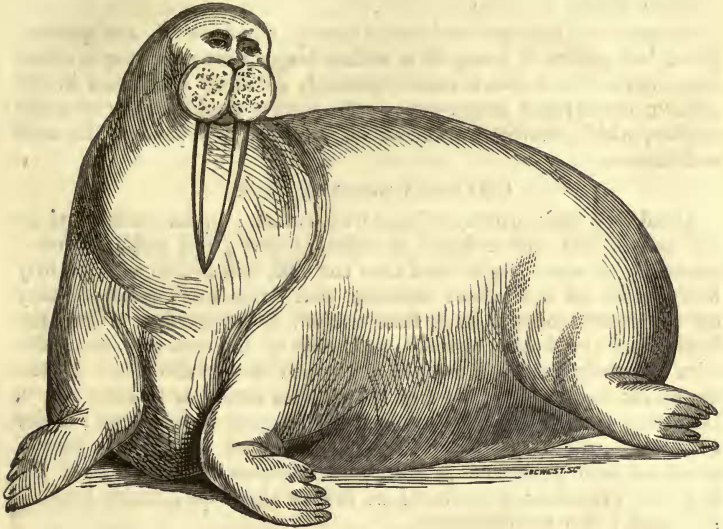


Fig. 10. *Arctic Walrus*. Cook's last Voy. t. 52. Shaw, Zool. t. 68.
(Reduced one-sixth.)

XXXIII.—*Descriptions of Eight New Species of Birds from South America.* By JOHN GOULD, Esq., F.R.S.

BEFORE describing the following birds, all of which are in my own collection, I would remark, that I have submitted them to the inspection of Mr. P. L. Selater, who has paid much attention to South American birds, and who pronounces them new to science; I therefore embrace the earliest opportunity of placing them upon record.

CAMPYLORHYNCHUS HYPOSTICTUS, Gould.

General hue of the upper surface brown, the feathers edged with greyish-brown, producing a somewhat spotted appearance; from above each eye, down the side of the neck, an obscure streak of buffy-white; upper tail-coverts dark brown, fringed with reddish-brown; along the margins of the primaries a series of dark brown dots on a light brown ground; tail brown, with lighter edges dotted with dark brown like the primaries; under surface greyish-white, with a streak of light brown down the centre of each feather, small on the throat, gradually increasing on the abdomen, and assuming

the form of bars on the flanks ; under tail-coverts buff, barred with dark brown ; irides red ; bill light horn-colour ; feet olive-brown.

Total length, $8\frac{1}{4}$ inches ; bill, 1 ; wing, $3\frac{1}{2}$; tail, $3\frac{7}{8}$; tarsi, 1.

Hab. Ucayli in Peru.

Remark.—This species is very closely allied to *C. scolopaceus*, Spix, but differs in being of a rather larger size, in having a somewhat more curved bill, a more uniformly coloured back, and in the greater number and larger size of the brown markings of the under surface, which, moreover, extend on to the upper part of the neck and throat.

CHAMÆZA NOBILIS, Gould.

Head very dark brown suffused with rufous ; upper surface, wings and tail-coverts rich reddish or saffron-brown ; tail reddish-brown, crossed by a broad black band near the end, and tipped with slightly buffy-white on the centre feathers, and much more conspicuously on the lateral ones ; lores fawn-colour ; under surface white, the feathers of the breast broadly, and those of the centre of the abdomen narrowly bordered on the sides with brownish-black ; on the flanks the latter hue increases to such an extent as to leave only a lanceolate stripe of the white down the centre of each feather ; under tail-coverts buff, speckled with brown ; above each eye a narrow streak of buff commencing a little in advance of the centre of the eye, and extending downwards as low as the nape ; irides brown ; bill black ; feet reddish-brown.

Total length, $9\frac{1}{2}$ inches ; bill, $1\frac{1}{8}$; wing, $4\frac{1}{2}$; tail, $2\frac{7}{8}$; tarsi, $1\frac{3}{4}$.

Hab. Chamicurros, on the eastern side of Peru.

Remark.—This is the largest and perhaps the finest species of the genus : its legs and feet are very powerful, its bill thick and strong, its tail very short and rounded, its wings concave, and its plumage offers that silkiness to the touch which is so characteristic of the members of the genus *Chamæza*, of which it forms in every sense a typical example.

FORMICARIUS NIGRIFRONS, Gould.

Band across the forehead black ; crown, occiput and nape deep chestnut ; upper surface and wings rich brown ; central primaries edged at the base with yellowish-brown ; base of the inner web of the primaries and secondaries golden, showing conspicuously on the under surface, but not perceptible on the upper ; the outer covert at the shoulder with a streak of ochreous-yellow along the margin of its outer web ; tail brown at the base, gradually deepening into black at the tip ; throat, neck and breast sooty-black ; abdomen and under tail-coverts fuliginous-brown, assuming an olive tint on the flanks ; irides brown ; bill black ; feet dark brown.

Total length, 7 inches ; bill, $\frac{7}{8}$; wing, $3\frac{3}{8}$; tail, $2\frac{1}{4}$; tarsi, $1\frac{1}{8}$.

Hab. Chamicurros, on the eastern side of Peru.

Remark.—About the same size and nearly allied to *F. Cayennensis*, but may be at once distinguished from that species by the bar of black on the forehead.

FORMICARIUS ERYTHROPTERUS, Gould.

Head, upper and under surface and the tail black ; feathers of the shoulders and mantle fringed with grey, giving it a scale-like appearance ; those of the back fringed in a similar manner, but so narrowly as to be scarcely apparent ; tail-coverts black, edged with rusty-red ; extreme edge of the shoulder white ; wing-coverts black, tipped with dark rust-red, forming first a narrow bar of red, and then a broad one of black ; primaries rusty-red, largely tipped with black ; secondaries rusty-red at the base, then black and tipped with rusty-red, the extent of the red increasing as the feathers approach the body ; orbits naked and apparently red ; bill black ; feet fleshy-brown.

Total length, $6\frac{3}{4}$ inches ; bill, $\frac{7}{8}$; wing, $3\frac{1}{2}$; tail, $2\frac{1}{2}$; tarsi, $\frac{3}{4}$.

Hab. Interior of Demerara.

Remark.—This is a very fine species. The specimen above described, which is the only one I have seen, is in my own collection.

SCHISTOCHLAMYS SPECULIGERA, Gould.

Head, neck, breast, back, wings and tail black ; base of the third, fourth and succeeding primaries white, forming a small conspicuous patch in the centre of the wing ; lower part of the back, rump and upper tail-coverts grey ; under surface of the wing, abdomen and under tail-coverts white ; flanks grey, with a few black feathers interspersed on the sides of the chest ; irides red ; bill, legs and feet greenish.

Total length, $6\frac{3}{4}$ inches ; bill, $\frac{3}{4}$; wing, 3 ; tail, 3 ; tarsi, $\frac{7}{8}$.

Hab. Ucayli in Peru.

THAMNOPHILUS CORVINUS, Gould.

The entire plumage deep black with the exception of the shoulders, on which is a broad mark of white ; bill black ; feet dark olive.

Total length, 7 inches ; bill, $1\frac{1}{8}$; wing, $3\frac{3}{8}$; tail, $2\frac{5}{8}$; tarsi, $1\frac{1}{4}$.

Hab. Ucayli in Peru.

THAMNOPHILUS MELANURUS, Gould.

Male.—Crown and sides of the head, crest, back, lesser wing-coverts and tail, black ; the wing-coverts tipped with white ; remainder of the wing blackish-brown ; throat and all the under surface white ; bill black, becoming lighter at the base ; feet olive-brown.

Total length, $8\frac{1}{2}$ inches ; bill, $1\frac{1}{4}$; wing, $3\frac{1}{2}$; tail, $3\frac{1}{2}$; tarsi, $1\frac{1}{4}$.

Female.—Crown of the head, crest, upper surface of the body, wings and tail, chestnut ; throat and chest white, passing into the mingled grey and sandy-red of the flanks ; feathers clothing the thighs rusty-red tipped with white ; bill blackish-brown ; feet olive-brown.

Hab. Ucayli in Peru ; I have also received examples from Bogota. I must remark, however, that the specimens from the latter locality are somewhat smaller than those from Peru.

THAMNOPHILUS HYPERYTHRUS, Gould.

Crown and sides of the head, all the upper surface and tail, slaty-black; wings brownish-black, with a spot of white at the tip of each of the coverts, forming three semicircular rows across the wing; chin, breast and abdomen rich dark chestnut-red, gradually blending on the flanks and vent into the dark hue of the upper surface; bill black; feet olive-brown.

Total length, 7 inches; bill, 1; wing, $3\frac{1}{8}$; tail, $2\frac{1}{2}$; tarsi, 1.

Hab. Chamicurros in Peru.

Remark.—I believe the above to be the description of a female.

XXXIV.—On the Impregnation and Germination of the *Algæ*.

By DR. PRINGSHEIM.

To the Editors of the *Annals of Natural History*.

GENTLEMEN,

April 25, 1855.

THE author having forwarded me a copy of the *resumé* of his researches lately laid before the Berlin Academy, with a request that I will make them known in England, I have drawn up a brief abstract of them, and beg to offer this for insertion in your pages.

I am, Gentlemen, yours very truly,

ARTHUR HENFREY.

VAUCHERIA.

Besides the large ciliated zoospore, so fully described by Unger and others, the *Vaucheria* possess organs, known by the names of *capsules* or *sporangies* and *horns*. These were regarded by Vaucher as sexual organs, and he believed that the horns performed the functions of anthers, stating that they emitted a dust-like product, which he compared to the pollen of *Phanerogamia*, and imagined to exert a fertilizing influence upon the contents of the sporangies. This view has been contested by subsequent authors, some of whom have stated that a *conjugation* takes place, between the horn and the sporange, analogous to that seen in *Zygnema*, &c. Karsten (*Botan. Zeitung*, 1852, p. 89) has given an elaborate description of such a process. Dr. Pringsheim believes that Vaucher approached nearest to the truth, and states that the supposed conjugation is altogether imaginary. According to his recent researches, the horn is really an *antheridium*, since its contents become converted into spermatozoids, bodies which when in motion appeared stick-shaped, but when allowed to come gradually to rest, presented the appearance of minute clear vesicles, 1–180 of a line in dia-